

Application No. 10/776,933

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Docket No.: 58614(71432)

**REMARKS**

Applicants thank the Examiner for the interview of September 18, 2007.

Claims 2, 4-9, 14-16, 47-50, 53-54, 91, and 93-105 were pending in the application. Claim 91 has been amended. Claims 98-105 have been indicated as allowable in the Office Action dated May 31, 2007. Accordingly, after the amendments herein have been entered, claims 2, 4-9, 14-16, 47-50, 53-54, 91, and 93-105 will remain pending.

*No new matter has been added.* Any cancellation of the claims should in no way be construed as an acquiescence to any of the Examiner's rejections and was done solely to expedite the prosecution of the application. Applicant reserves the right to pursue the claims as originally filed in this or a separate application(s).

***Indication of Allowability of Claims***

Applicants thank the Examiner for the indication that claims 98-105 are allowable.

***Rejection of Claims 2, 4-9, 14-16, 47-50, 53-54, 91, and 93-97 Under 35 U.S.C. 103(a)***

The Examiner has maintained the rejection of claims 2, 4-9, 14-16, 47-50, 53-54, 91, and 93-97 under 35 U.S.C. 103(a) as being unpatentable over Wright et al. (WO 99/38963) in view of Thruet et al. (US 2004/0096848 A1). Specifically, the Examiner states

Applicant's arguments filed on March 22, 2007 have been fully considered but they are not persuasive. Applicant argues that Wright et al. do not teach or suggest the compounds set forth in the instant invention and Thruet et al. do not make up for the deficiencies of Wright et al, and therefore, the combination of Wright et al. and Thruet et al. would not lead one of skill in the art to the claimed invention. Contrary to applicant's assertions, Wright et al. teach a number of different antisense compounds of 17 to 20 nucleotides in length, which are targeted to thioredoxin mRNA sequence as is the case with the instant application. See Table 1. Each of the 26 antisense oligonucleotide sequences set forth in Table 1 comprises at least 8 nucleotides of SEQ ID NO: 8 consisting of "CAAGGAATATCACGTT". They teach that the thioredoxin antisense compounds include non-natural nucleotide analogs and/or phosphorothioate internucleotide linkages for increased nuclease resistance and/or increased uptake into cells (i.e., chemically modified nucleotides).

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Applicants respectfully traverse this rejection. As indicated previously, Wright et al. do not teach or suggest the compounds set forth in the instant invention. Moreover, Thruet et al. does not make up for the deficiencies of Wright et al. Therefore, the combination of Wright et al. and Thruet et al. would not lead one of skill in the art to the claimed invention.

In the interest of more precisely defining the claimed subject matter, Applicants have amended claim 91 to indicate that the claimed compound consists of 12-50 nucleotides and/or nucleotide analogues, wherein said compound comprises a subsequence of at least 8 nucleotides or nucleotide analogues, said subsequence being *a contiguous portion* of the sequence caaggaatatcacgtt (SEQ ID NO:8).

This amendment to the claim is supported in the specification as originally filed. Specifically, the specification teaches that the compounds of the invention are intended to be complementary to the corresponding portion of the target molecules (see, for example, the paragraph bridging pages 12-13 of the specification as filed). SEQ ID NO:8 is complementary to nucleotides 229-244 of target molecule, SEQ ID NO:1. Therefore, the specification teaches that the compounds of the invention comprise contiguous subsequences of the claimed molecules, e.g., SEQ ID NO:8.

The Examiner cites Table 1 of Wright et al. and alleges that each of the 26 antisense oligonucleotide sequences set forth in Table 1 comprises at least 8 nucleotides of SEQ ID NO:8. Clearly, these sequences do not comprise 8 *contiguous* nucleotides of SEQ ID NO:8 as currently claimed. A critical review of the 26 sequences in Table 1 reveals that SEQ ID NO:14 set forth in Table 1 has the longest stretch of contiguous nucleotides of SEQ ID NO:8. However, the stretch of contiguous residues in SEQ ID NO:14 is only 6 nucleotides, and not the 8 that are required by the instant claim. Accordingly, Wright et al. do not teach or suggest the currently claimed compounds.

The Examiner has indicated that the pending claims are unpatentable over Wright et al. in view of Thruet et al. However, Thruet et al. do not remedy the deficiencies of Wright et al. Thruet et al. teach that  $\beta$ -D-oxy-LNA are useful nucleotide analogs due to their affinity toward DNA and RNA. However, these teachings do not remedy the deficiencies of Wright et al.

Accordingly, the pending claims are patentable over Wright et al. in view of Thruet et al. and Applicants respectfully request that the Examiner reconsider and withdraw the foregoing rejection.

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**CONCLUSION**

In view of the above amendment, Applicants believe that the pending application is in condition for allowance. If a telephonic conversation would be helpful, the Examiner is urged to contact the undersigned.

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Respectfully submitted,

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